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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/559,820	04/28/2000	Takashi Murai	Q59071	3230

7590 10/29/2002

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EXAMINER

MCANULTY, TIMOTHY P

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 10/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/559,820

Applicant(s)

MURAI, TAKASHI

Examiner

Timothy P McAnulty

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first pocket surface formed on each of said ring-shaped side plates and said first pocket surfaces formed into an arc-shaped configuration as claimed in lines 17 and 18 of claim 3 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1,2,4 and 7-9 are rejected under 35 U.S.C. 103 as being unpatentable over Bessone et al. in view of Baden.

Regarding claims 1 and 2, Bessone et al. in figure 4, discloses a retainer for a rolling bearing comprising a rolling element receiving pocket 7 for receiving a rolling element wherein said pocket 7 defined by a pair of ring-shaped side plates and a pair of pillars each having end portions which are connected to said ring-shaped side plates. Bessone et al. in figure 2, discloses said pocket comprising a first pocket surface 19 formed on each of said pillar to prevent roller element run-out, a second pocket surface 17 formed on each of said ring-shaped side plates and an escaping recess 13 disposed between said first and second pocket surfaces wherein the

Art Unit: 3682

minimum plate width of said ring-shaped side plates at said escaping recess is made uniform.

Bessone et al. in figure 2, further discloses the width of said pocket in the revolving direction of the retainer is made smaller than the diameter of said rolling element and the length of said first pocket surface 19 is made shorter than the effective length of said rolling element. Finally

Bessone et al. in lines 18 and 19 of column 2 discloses the use of rolling bodies and suggests but does limit itself to the use of cylindrical rollers. Bessone does not disclose the run-out

preventing portion being equal to or less than a roller effective length and greater than 0.75 times

the roller effective length. However, Baden teaches in figures 1 and 2, a retainer for antifriction

bearings comprising a roller 35 inserted into a pocket 20 having first pocket surface 28 and a

second pocket surface (not numbered) wherein said first pocket surface is a roller run-out

preventing portion. Baden further teaches that said first pocket surface being less than an

effective length of the roller and at least greater than 0.75 times the length of the a roller.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the apparatus of Bessone et al. in view of the teachings of Baden to include a

first pocket portion being less than the length of the roller effective length and greater than 0.75

times the roller effective length so as to provide a longer engagement area between the first

pocket surface and the roller to maintain axial alignment of the roller within the pocket to ensure

proper radial support between an inner ring and an outer ring between which the roller bearing is

located. Although Baden does not specifically disclose the lower bound of the run-out

preventing portion being 0.75 times the roller effective length, the actual dimension is merely a

matter of engineering design choice and the level of skill of one of ordinary skill in the art would

Art Unit: 3682

produce a similar optimization, especially absent any evidence to the contrary, i.e. unexpected results.

The limitation as to the formation of the pocket surfaces by machining with a tool member or multiply tool members whose machining part has a sectional contour which coincides with a sectional configuration of said pocket surfaces after formation of said pocket does not further limit the retainer as claimed. Even though product - by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. See MPEP § 2113.

Regarding claims 4 and 7-9, Bessone et al. does not disclose said first pocket surface 19 being arc-shaped. However, Baden further teaches said first pocket surface being arc-shaped. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Bessone et al. in view of the teachings of Baden to include the first pocket surface being arc-shaped to conform to the curvature of a rolling element inserted in said rolling element receiving pocket.

4. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bessone et al. in view of German Patent No. 1062069.

Bessone et al. discloses the basic apparatus as previously cited but does not disclose said first pocket surface 19 being arc-shaped. However, German Patent No. 1062069 teaches in figures 1-3, a bearing retainer including pocket surfaces 6 being arc-shaped. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Bessone et al. in view of the teachings of German Patent No. 1062069 to include the

Art Unit: 3682

first pocket surface being arc-shaped to conform to the curvature of a rolling element inserted in said rolling element receiving pocket.

Response to Arguments

5. Applicant's arguments in Paper No. 13, filed 28 August 2002 have been fully considered but they are not persuasive. The dimensional limitation of the run-out preventing portion being less than or equal the roller effective length and greater than 0.75 times the roller effective length is taught by Baden. Additionally, the teachings of German Patent No. 1062069 relied upon for rejection of claims 3 and 5 is limited to pocket surfaces being arc-shaped. Bessone et al. clearly discloses all other features of the claimed invention and modifying Bessone et al. to include arc-shaped pocket surfaces would not alter the apparatus so as to make it inoperable.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3682

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy P McAnulty whose telephone number is 703.308.8684. The examiner can normally be reached on Monday-Friday (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703.308.3668. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.7687 for regular communications and 703.305.7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.

tpm 
October 22, 2002


DAVID A. BUCCI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600